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## 14. Collective leadership as a facilitator of innovation

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### INTRODUCTION

It has been recognized for some time that the leadership required for managing innovation, and in particular the early phases in which creativity is essential, was different from the traditional, hierarchical, forms of leadership (Mainemelis, Kark, & Epitropaki, 2015; Mumford, Scott, Gaddis & Strange, 2002; Shalley & Gilson, 2004). However, it is only in the last 10–15 years that a dramatic shift has taken place within the leadership field to an increased focus on more horizontal forms of leadership that may be better attuned to employee needs during the creative and innovative processes.

While several early leadership theories, such as Vroom and Yetton's (1973) normative leadership model, included leadership behaviors that involved others in the decision-making process, these more modern efforts seek to understand how the leadership role may be shared amongst multiple individuals (D'Innocenzo, Mathieu, & Kukenberger, 2014; Nicolaides et al., 2014; Wang, Waldman, & Zhang, 2014; Yammarino, Salas, Serban, Shirreffs, & Shuffler, 2012). These horizontal forms of leadership can take a more subtle form like empowerment (Konczak, Stelly, & Trusty, 2000) or giving voice to followers (Axtell et al., 2000), or more direct forms like in delegation (Klein, Ziegert, Knight, & Xiao, 2006), distributed leadership (Gronn, 2002) or shared leadership (Pearce & Conger, 2002).

The sharing of the leadership role has shown clear benefits to individual, team, and leader performance across a number of domains, including research and development (Amabile, Schatzel, Moneta, & Kramer, 2004), health care (Klein et al., 2006), and the military (Friedrich et al., 2014), among others. The need for these forms of leadership are becoming increasingly necessary as work becomes more knowledge based, problems become more complex, and there is a greater need for responsiveness in increasingly dynamic markets. The shift to knowledge work makes the need for sharing knowledge and capitalization on individuals' expertise a critical element of the problem-solving process. The need for quicker responses means that authority must be distributed and individuals should be empowered to make decisions without checking with a superior at all times. Finally, and crucially, as problems become increasingly complex, it is no longer possible to expect a single leader to be able to guide the team in solving the problem from start to finish. This confluence of factors has spurred the growth in the number of leadership theories focusing on horizontal forms of leadership, such as shared leadership, distributed leadership, complexity theory, team leadership, and collective leadership (D'Innocenzo et al., 2014; Nicolaides et al., 2014; Wang, Waldman, & Zhang, 2014; Yammarino et al., 2012).

However, as the number of horizontal theories increased, words of caution began to emerge that we cannot ignore the role of the focal leader (Locke, 2003; Pearce, Conger, & Locke, 2007). In fact, several studies indicate that leadership may be most effective when both vertical and horizontal forms of leadership are employed (Ensley, Hmieleski, & Pearce, 2006; Pearce, 2004; Pearce & Sims, 2002). For instance, Pearce (2004)

indicates that shared leadership is particularly important in knowledge work, but the focal leader can be seen as a facilitator of the shared leadership. In an empirical study, Ensley, Hmieleski, and Pearce (2006) found that while shared leadership provided value beyond vertical leadership, both were critical to the performance of start-ups.

The collective leadership framework emerged as a result of the need to acknowledge the persistent and important role of the focal leader, while also expanding our understanding of how focal leaders can share the role with others. Collective leadership, as defined by Friedrich, Vessey, Schuelke, Ruark, and Mumford (2009), involves a focal leader or leaders selectively utilizing the expertise of others, whether in a direct fashion (e.g., explicitly distributing the leadership role to an individual with the relevant expertise), or in an indirect fashion (e.g., empowering individuals in the team to step up when needed). The original framework proposed in 2009 sought to integrate a number of different leadership theories that were believed to be relevant to the emergence of this form of leadership. In addition to their integration of several areas of leadership research, the framework made several key contributions to the emerging field of horizontal, or collectivistic theories (Yammarino et al., 2012). First, as stated before, it integrated both vertical and horizontal forms of leadership. Second, it highlighted the importance of networks to the emergence of collective leadership, and third it highlighted the importance of leader cognition, and social cognition in particular (Mumford, Friedrich, Vessey, & Ruark, 2012).

While leadership scholars have acknowledged that collectivistic forms of leadership may not be appropriate in all situations (Mumford et al., 2012), one domain in which it may prove particularly useful is in innovation. Innovation is characterized by both a creative stage in which ideas emerge, and an implementation stage during which the ideas are put into practice (Anderson, Potočník, & Zhou, 2014). Research has shown that more facilitative forms of leadership are associated with creative performance in earlier, idea generation-oriented processes, while more directive forms of leadership may aid in the implementation of innovations (Caniëls, De Stobbeleir, & De Clippeleer, 2014). Thus, a leader who is able to lead collectively may be particularly capable in the innovation context given that collective leadership integrates both vertical and horizontal forms of leadership. In this chapter, we will explore the ways in which collective leadership behaviors may foster innovation.

We will first review existing research on collective leadership and innovation, and highlight three sets of collective leadership behaviors that may facilitate innovation in teams, namely: (1) network development, (2) communication, and (3) leader-team exchange. For each of the three behaviors, we will then review the central role each of them play in the collective leadership process, the specific actions each of the behaviors consists of, and the roles these specific actions can play in facilitating innovation.

## <a>COLLECTIVE LEADERSHIP AND INNOVATION

There has been a great deal of work, particularly recently, in understanding the role that leaders play in the creative and innovative processes (Mainemelis et al., 2015), with the overarching conclusion that leaders play a quite critical role in fostering creativity and innovation (Byrne, Mumford, Barrett, & Vessey, 2009; Hemlin, Allwood, Martin, & Mumford, 2013). This influence can arise in a number of ways, such as establishing goals or missions (Pinto & Prescott, 1988; Shalley, 1995) the allocation of resources (Ekvall & Ryhammer, 1999), as a champion to the broader organization (Elkins & Keller, 2003; Vessey, Barrett, Mumford, Johnson, & Litwiller, 2014), facilitating knowledge sharing (De Jong & Den Hartog, 2007), serving as a creative role model (Shalley & Perry-Smith, 2001; Tierney & Farmer, 2002), building a trusting and safe environment in which

ideas can be shared (Anderson & West, 1998), providing feedback (Byrne et al., 2009), sharing their own creativity and expertise (Mumford et al., 2002) and empowering followers to make creative choices (Sun, Zhang, Qi, & Chen, 2012), among others.

In their recent review of the ways in which leaders may enable creativity and innovation, Mainemelis et al. (2015) suggest that leaders may be facilitators, in that they facilitate the creativity of others, directors in that they put forth their own creative vision, or integrators in that they promote collaboration among creative individuals, including themselves. Their conceptualization of both integrators as well as facilitators is in line with how we propose that collective leadership operates within the innovation context. According to the collective leadership framework (Friedrich et al., 2009), leaders facilitate network development and communication, which are essential conditions for others to take on the leadership role (facilitators). This role is then shared through either direct or indirect leader–team exchanges of the role to the individuals who have the most relevant expertise (integrators).

Collective leadership, as a unique theory, is relatively new (Friedrich et al., 2009). However, as the authors have indicated, the theory is viewed more as a framework in which multiple theories have been incorporated (Mumford et al., 2012). Thus, existing research on those theories within the framework (e.g., shared leadership, network development) provide insight into how collective leadership may operate in various contexts, including leading innovation. While there is ample evidence that involving others in the leadership and decision-making process is good for individual and team innovation (Axtell et al., 2010; Mihalache, Jansen, Van den Bosch, & Volberda, 2014; Sun et al., 2012; Zhang & Bartol, 2010), the most telling evidence for the benefit of collective leadership for innovation comes from research that shows the importance of both vertical and horizontal leadership for innovative endeavors (Ensley et al., 2006; Hoch, 2013; Pearce, 2004).

The collective leadership framework, as outlined in the 2009 article, and summarized in Figure 14.1, proposes that leadership is a dynamic process that can be shared depending on who holds the most relevant expertise at a given time. Unlike many other collectivistic leadership theories, however, the role of the focal leader is still quite important. As can be seen in Figure 14.1, the focal leader and his or her characteristics, network, and key leadership behaviors such as defining the group and establishing a mission, drive the collective leadership process. The authors, Friedrich et al. (2009), identify several central actions that are most closely tied to the selective distribution of the leadership role. These include the development of both the leader and team's network, facilitating communication, and exchanging the leadership role between the focal leader and members of the team. As mentioned in a recent empirical study of several key components of the framework, the framework was not developed to be a single, testable model of the collective leadership process, but rather is a “bird’s-eye-view of the multilevel factors ... that may influence the emergence of collective leadership” (Friedrich, Griffith, & Mumford, 2016). Please see the original 2009 paper for a detailed overview of each component of the framework.

<Figure 14.1 here>

Two recent empirical studies of the framework indicate that there are several key components of the collective leadership framework that are closely associated with team performance. In a study on General George C. Marshall, the former United States Secretary of State who held a number of high-ranking leadership roles,

including Army Chief of Staff, and was the chief architect of the Marshall Plan, Friedrich et al. (2014) found that Marshall's efforts to develop his network, use of effective communication tactics, and utilization of leader–team exchanges of the leadership role (referred to as collectivistic actions in that article) were all positively related to Marshall's overall performance. In a second experiment that sought to evaluate how contextual factors influence the use of these three key collective leadership behaviors, Friedrich et al. (2016) found that their use varied across network types and problem types, and the exchange of the leadership role was used more in an innovation context than in a strategy context.

Given the available research that highlights the central role that these three sets of behaviors – network development, communication, and leader–team exchange – play in the collective leadership process, we have chosen to examine how these three sets of behaviors may facilitate innovation in teams and, as a result, demonstrate that collective leadership may be a particularly useful leadership strategy for promoting innovation in teams. Figure 14.2 highlights the three sets of behaviors that we will examine and the relationship between them as demonstrated by prior collective leadership research (Friedrich et al., 2009, 2014, 2016). Within each broad set of behaviors are specific actions identified in the collective leadership literature as methods for developing the network, encouraging communication, and exchanging the leadership role between the leader and the team (Friedrich et al., 2016).

<Figure 14.2 here>

#### <a>NETWORK DEVELOPMENT

Our understanding of how networks, the leader's and within the team, influence team outcomes has been steadily growing (Carter & DeChurch, 2012; Carter, DeChurch, Braun, & Contractor, 2015). Consistent findings demonstrate that characteristics of leader and team networks, as well as an individual's position in their networks, influence individual and team innovation (Baer, 2010; Carter, DeChurch, & Zaccaro, 2014; Perry-Smith & Shalley, 2003). In addition, there is evidence that an individual's networking skills are tied to creativity and innovation. Specifically, Baer (2012) found that not only did networking ability improve the chances that an individual's creative ideas would move forward through implementation, but that having strong “buy-in” relationships could also influence implementation success.

In the collective leadership framework, Friedrich and colleagues (2009) indicate that both the leader and the team's network are critical to the collective leadership process. They state that the network is the conduit through which information, particularly about who has the relevant expertise, is exchanged. Put another way, if individuals are not aware of one another, and, in particular, are not aware of the expertise that others have to offer, it will be difficult for the leadership role to be dispersed to those with the relevant expertise. With regard to innovation, the team's network is critical to the team's creative problem-solving process as a conduit for the exchange and integration of knowledge. The leader's network is also important for the creative problem-solving process, but provides a second, critical function at later stages – providing advantages for obtaining buy-in and resources from external stakeholders, which are necessary for implementation.

In a review of Tuckman's (1965) classic paper on team development stages, Rickards and Moger (2000) suggested that teams engaged in the creative process may face barriers that are different or more persistent than teams engaged in non-creative tasks. They suggested the role of “network activator” as an important role in facilitating the team's creative work. A recent study by Venkataramani, Richter, and Clarke

(2014) drives home the importance of both the team network and the leader's network to an employee's creativity – particularly radical creativity. They found that both the leader's centrality within the team's idea network, and their external connections to other leaders, had a positive influence on an employee's radical creativity. In addition, the employee's ties within the team's idea network could compensate when the leader did not occupy a central position.

In order to encourage network development, the available research on collective leadership indicates that there are three key steps: building connections, encouraging interaction and building familiarity. These can be seen as gradually increasing levels of involvement. Building connections refers to the establishment of the contact, and that there is value in creating a network of different contacts. Fostering interaction means encouraging regular contact beyond just being connected or associated with one another. Interactions may occur formally, such as in meetings, or informally, such as in public spaces that the organization has created to facilitate interaction. Finally, building familiarity means expanding the depth of the connections between individuals – they get to know one another and understand one another.

#### **<b>Fostering Connections**

The initial step of developing the network is to foster connections. Leaders can do this directly by facilitating contact internally between team members, or externally to other leaders or teams. They can also do this indirectly by creating conditions in which employees are more likely to interact and form connections. The establishment of contacts helps set the train in motion for the conditions that will allow different individuals to be tapped for leadership responsibilities when they have the relevant expertise. In addition to facilitating the emergence of collective leadership, fostering connections can also facilitate creativity and innovation as interpersonal connections are often seen as a means for acquiring new knowledge, information sharing and cross-fertilization, which are important drivers of creative problem-solving (Harvey, 2014).

Early research on the relationship between interpersonal connections and innovation demonstrated that building coalitions to move ideas forward is an important part of the innovation system (Kanter, 1988). More recent research has found that there is more to it than having a diverse network of connections. For instance, Baer (2010) found that higher levels of creativity occurred when an individual had a moderately sized network of weaker, diverse ties, particularly when they were high on openness to experience. Zhou, Shin, Brass, Choi, and Zhang (2009) had similar findings but also looked at an individual's propensity for conformity. Low conformity facilitated the utilization of weak ties. While openness to experience and conformity are seen as more static traits – leaders could facilitate conditions to enhance (openness to experience) or minimize (conformity) the activation of these traits in order to unlock the power of having a wide and diverse network.

A recent finding drives home the importance of individuals having a diverse network of connections. Hirst, Van Knippenberg, Zhou, and Quintane (2015) found that the benefits of connections to an individual's creativity extend even beyond one's immediate contacts. They found that the second-order contacts, in particular, are quite useful to an individual's creativity. Given that one's direct ties are more likely to have redundant information or knowledge (and thus not foster creative thinking), it is the connection beyond, the second-order connection, that is more likely to facilitate the exchange of new knowledge and lead to new insights. And as these individuals are only one connection away, they are still close enough that the knowledge or information has a fair chance of flowing to the focal individual.

It is clear that the connections an individual has can influence their creativity, but there is also benefit derived from the connections in the focal leader's network. Elkins and Keller (2003) propose that a key role that leaders serve in the innovation, and particularly R&D process, is to make external connections through which they can champion the team's ideas. In an empirical study along these lines, Carter, DeChurch, and Zaccaro (2014) found that a leader's network connections, particularly those outside of the team, were important to the team's successful innovation.

While the focal leader's network can benefit the employees' creativity, the employees' networks can also exert a strong influence on the leader's creative problem solving. Contact with diverse associates within or outside of the team or organization is expected to enhance important creativity-related skills (Perry-Smith and Shalley, 2003), and employees' direct and indirect ties are social resources that leaders should not ignore. Along these lines, Shalley and Gilson (2004) suggested that in order to foster creativity, leaders should think of different ways to encourage employees to come into contact with others both within and outside of the work group, and Ibarra and Hunter (2007) suggest that a leader can utilize their network strategically, not only to scan the environment for new ideas, but also to secure resources in order to implement them.

#### **<b>Facilitating Interactions**

The second way in which the network can be developed in the collective leadership process is through promoting interaction among members of the network. Promoting contact is seen as a key behavior that leaders should engage in when promoting innovation (Mumford et al., 2002) as a way to facilitate information sharing and collaboration. Fostering interactions can increase a team or organization's ability to make new connections between their diverse knowledge, which increases absorptive capacity and innovation as a result (Cohen and Levinthal, 1990). Similarly, increasing interaction within teams can make them more aware of each other's capabilities and knowledge, which can increase the team's ability to draw from and combine that diverse knowledge. In a study along these lines, Taylor and Greve (2006) found that a team's tenure together was positively related to team innovation in the comic book industry. The authors propose that a team that has interacted previously will have an easier time doing the difficult work of combining diverse knowledge.

It is not just important to have frequent interaction within the team network. A study by Keller (2001) demonstrated that a key benefit of functionally diverse teams is that they facilitate interaction with stakeholders outside the group. By itself, having diverse expertise in the team was insufficient for improving the technical performance of the research and development teams. Rather, it was only when it was paired with external communication that the positive relationship was observed. The author proposed that the individuals who served as champions of the R&D teams and interacted with their external networks were key to improving the R&D team's performance.

#### **<b>Building Familiarity**

A natural by-product of increased interaction is often an increase in familiarity, however this is not a given and there is value in further developing the network to ensure that interactions, particularly within the team, improve individuals' understanding of one another. In an interesting early study in this area, Albrecht and Ropp (1984) found that discussion of innovation between co-workers happened more frequently when they also discussed personal topics or things related to their social lives – indicating that establishing interpersonal familiarity may facilitate increased communication and information sharing with regard to innovation.

In addition to increased communication as a result of familiarity, getting to know one another increases the strength of bonds, which has added social benefits such as the ability to take the other person's perspective, promoting collaboration, and providing one another with emotional support. However, Van Knippenberg, Van Ginkel, & Barkema (2012) found that while diversity can sometimes have a negative effect on a team's creative performance, perspective taking can mitigate these effects and unlock the potential of having diverse perspective in the team. Taking a cooperative approach rather than a competitive approach has been shown to foster more information sharing, which ultimately promotes better problem solving (Tjosvold & McNeely, 1988). In addition, Madjar (2008) found that emotional support for creativity, from individuals within the primary work unit as well as others within work, was positively related to an employee's creativity. Being able to take another person's perspective, cooperate with them, and provide them with emotional support is likely to increase with greater familiarity. Thus, one would expect that promoting familiarity amongst members of the network would facilitate a team's creativity and innovation.

The focal leader can play an important role in building familiarity in the team. Shin, Kim, Lee, and Bian (2012) found that the cognitive diversity of a team (the extent to which members of the team differ in their way of thinking, in their knowledge and skills, how they see the world, and in their perspectives of right and wrong) was beneficial to individual's creativity but only when transformational leadership was high. Transformational leaders typically promote debate, perspective taking, and attend to the psychological safety within the team – which all help to build familiarity. Thus, as leaders develop the network by promoting familiarity, they can also facilitate innovation.

It is important to note an alternative perspective from the research. As demonstrated above, familiarity breeds trust and communication, which can facilitate innovation. However, the research on the strength of weak ties (Perry-Smith, 2014) as well as research that has demonstrated the advantages of leaders having sparser networks that do not constrain their resources (Rodan & Galunic, 2004), suggests that closeness of ties can be a disadvantage for innovation. We propose that the critical difference is in the nature of the network – leaders, as facilitators of network development and champions to the rest of the organization, benefit when ties are sparse; however, within the team, close ties are critical for trust and information sharing. A study by Perry-Smith (2014) adds to this in showing that weak ties were more beneficial to creativity when providing information, but stronger ties held value when they were presenting different ways of thinking about, or framing, the problem – having familiar contacts that can challenge your way of thinking about a problem is quite important when working through the creative process.

## <a>COMMUNICATION

As shown in Figure 14.2, the two collective leadership behaviors of developing the network and fostering communication are closely tied and positively related to one another. Effective and efficient communication is easier in a well-developed network, and developing the network fosters increased communication. However, we propose, as was illustrated in the initial framework, that intentions to build the network precede communication behaviors, which is the reason for reviewing it first. However, establishing the network is merely laying the pipeline; it is critical to collective leadership and the promotion of innovation, that information then be pumped through that pipeline via communication. Communication, both amongst the team and from the leader, is critical to innovation. With regard to the leader, Mayfield and Mayfield (2004) demonstrated that a leader's communication, including direction-giving language, empathetic language, and meaning-making language,



influences follower innovation via motivation. In addition, Faulkner (1973) found that communication competence facilitated the creative contribution of orchestra conductors.

Within the team, communication is a key driver of innovation (Hülshager, Anderson, & Salgado, 2009) – both by facilitating information sharing and feedback exchange within the team (internal communication), and also by connecting to outside sources of information or support through external communication networks (external communication). Lievens, Moenaert, & S’Jegers (1999) suggested that internal and external communications serve different functions in the context of financial service innovation. They found that internal communication within the team contributes to the reduction of uncertainty perceived by team members, the improvement of organizational climate and the achievement of cross-functional cooperation between team members, whereas the external communication creates awareness among potential users as well as realistic expectations. Katz and Tushman (1979) found that communication plays an important role in the innovation process, and the type of communication used may vary based on the task, phase, or level of innovation. A key finding from their study demonstrates the connection between communication and networks. As the complexity of the innovation increases, the more important internal team communication became, while less complex innovations saw a benefit from more external connections.

The focal leader can play a critical role in facilitating communication in the team that ultimately enables collective leadership. They can create the communication “infrastructure” such as establishing norms or expectations for communication, they can promote horizontal communication such as information and feedback exchange, and they can facilitate vertical communication by giving their employees voice and consulting with them in decision making.

#### **<b>Establishing Communication Norms**

In fostering communication, leaders must establish expectations for the team’s communication practices. There is evidence that establishing these expectations and being clear and open when it comes to team communication, can have a benefit on team creativity and innovation. Specifically, having transparency of networks, and established expectations for how information should be shared is important for promoting innovation (Moenaert, Caeldries, Lievens, & Wauters, 2000). De Jong and Den Hartog (2007) demonstrated through a qualitative study of leaders that the stimulation of knowledge diffusion, which includes “stimulating open and transparent communication and introducing supportive communication structures like informal work meetings” was related to increased idea generation.

Monge, Cozzens, and Contractor (1992) found that levels of regular group communication, such as department or work group meetings or meetings between employees and supervisors, were positively related to higher levels of innovation. In addition, they found that an individual’s beliefs about how well informed they are about what is happening in the organization was also positively related to levels of innovation. Thus, it seems that promoting communication by establishing clear norms or expectations for communication, as well as transparency in communication, can spur creativity and innovation in teams.

#### **<b>Promoting Information Sharing**

In order for collective leadership to be possible, the leader and team must be aware of where the relevant knowledge and expertise lay within the team. This will only be possible if individuals share this information. Mumford and colleagues (2002) assert that enabling contact and information sharing is a key way in which leaders can promote creativity and innovation within teams. Similarly, Woodman, Sawyer, and Griffin (1993)

assert that the availability and sharing of both technical and social information is important for teams to be creative.

Often, diversity of expertise, particularly through functionally diverse teams, is held as an easy way to promote creativity on teams. However, Taylor and Greve (2006) demonstrate that it's not enough to just have diverse knowledge on the team, but that the diverse knowledge must be actively shared in order for it to benefit the team's creativity. It is proposed that the mechanism by which sharing information promotes creativity is that it enables team members to build off one another's ideas and can facilitate the process of synthesis by which knowledge or ideas from different individuals can be combined and adapted in unique ways (Harvey, 2014).

Two more studies drive home the importance of information sharing to capitalize on the benefits of diverse expertise. Hoefer et al. (2012) assert that it is not just about sharing information, it is about understanding others' perspectives, particularly when that information comes from diverse sources. They found that perspective taking moderated the relationship between diversity and team creativity. In addition, Shin et al. (2012) found that cognitive diversity of a team was beneficial to individual's creativity if the leader utilized a transformational leadership style – a style that tends to promote information sharing through intellectual stimulation and debate. It should be noted that the diversity of expertise included in the team should reflect the specific needs of the task and not simply diversity for diversity's sake.

#### **<b>Promoting Feedback Exchange**

When it comes to communication, there is one form that seems to have a paradoxical relationship with creativity. While many believe that evaluation or feedback can diminish creativity, there is quite strong evidence that feedback can play a critical role in promoting creativity (De Jong & Den Hartog, 2007; Zhou, 2008). In resolving the paradox, the key may be when the feedback is given, what type of feedback is provided, and who provides it.

While Noefer, Stegmaier, Molter, and Sonntag (2009) found that feedback from the supervisor can facilitate creativity, both during idea generation and implementation, Yuan and Zhou (2008) found that the *expectation* of feedback at the idea generation stage was detrimental to creativity, but expected feedback during the evaluation stage helped facilitate creative ideas. Perhaps, it is critical that leaders or other team members do not give the impression that evaluation will take place early in the process, but still provide the valuable feedback after outputs from those earlier generation stages have been received in order to improve performance in subsequent stages.

In addition to the timing of feedback, it appears that the style and content of the feedback can have an impact on employee creativity. Oldham and Cummings (1996) found that supportive leaders who provide positive, informational feedback promote more innovation than more controlling, less developmental leaders. Similarly, Zhou (1998) found that the valence and style of feedback may be critical – when working under high autonomy, individuals generated the most ideas when they received positive feedback that was informational in nature. Zhou (2003) also found that developmental feedback was beneficial, particularly when other creative co-workers were present.

For the leaders, themselves, De Jong and Den Hartog (2007) proposed that “organizing feedback” – both in what they provide as a leader, and what they seek out from other stakeholders – was a key way in which leaders can facilitate innovation, particularly the application of ideas. There is also evidence to suggest that a leader's feedback is most beneficial when the leader or person providing feedback is high on technical skills

(Andrews and Farris, 1967). In terms of the team, the leader must realize that some individuals are more likely to seek feedback than others. Given the evidence that seeking feedback is positively related to creativity (De Stobbeleir, Ashford, & Buyens, 2011), it would be advantageous for leaders to encourage team members to regularly seek feedback from one another.

#### **<b>Giving Voice**

In addition to setting expectations for communication and encouraging information and feedback exchange, another way that leaders can encourage communication as well as begin to share the leadership role is by giving employees voice in the decision-making process. Giving employees voice can be seen as a norm or even an element of the team climate – individuals perceive that their ideas and opinions carry weight and that they can have some influence over the team and work that is being done. By permitting employees to voice concerns or ideas, the leader is taking a step towards collective leadership as this allows the leader to be more aware of who holds the more relevant ideas or expertise in a given situation.

With regard to fostering innovation, it has been demonstrated that individuals' perceptions that they could participate, or have a voice, in their team and the organization, was positively related to both idea generation and implementation (Axtell et al., 2000). In addition, encouraging participation within the team can encourage creativity in teams, particularly as it allows for the benefits of encouraging minority dissent (De Dreu & West, 2001). These perceptions can be enacted by the leader's behaviors. For instance, supportive leadership, which includes giving employees the opportunity to voice their concerns, has been shown to be positively related to innovation (Oldham & Cummings, 1996). In addition, the actual act of being creative has been viewed as an expression of voice, particularly when employees are dissatisfied (Zhou & George, 2001).

#### **<b>Consultation**

The final way in which communication is facilitated through collective leadership is via consultation. Within the collective leadership research, consultation has been included in both the communication behaviors as well as the leader–team exchange behaviors (Friedrich et al., 2009, 2016) given that while it is based on an act of communication (asking someone for advice), it is also an exchange of decision-making authority. There is an extensive body of research on participative leadership, which is, in essence, a style based on consultation, or bringing others into the decision-making process. The research in this area shows clear evidence that engaging in consultation and involving others in the decision-making process can be beneficial to promoting innovation (Kanter, 1983; Somech, 2006). The mechanism for this is likely as we stated in the introduction – a single leader can no longer possess all of the information and knowledge necessary to manage the innovative process from beginning to end, thus it becomes crucial to consult with those in the team who do have the most relevant knowledge.

In an early study on consultation and innovation, Andrews and Farris (1967) found that the leader's consultation of subordinates in decision making was particularly important when they were given freedom, and moderated the relationship between freedom and innovation. Amabile et al. (2004) compared the cases of two leaders of research and development teams and found that a key difference between the more successful team and the less successful team was in how much the leader worked directly with the team members in making decisions. The effective leader involved others while the ineffective leader made decisions autonomously. Similarly, De Jong and Den Hartog (2007) conducted a series of interviews and found that consultation was a key leader behavior in promoting both idea generation and application of ideas.

## <a>LEADER–TEAM EXCHANGE

In the collective leadership framework, the authors propose that leader–team exchange is the portion where most of the collective activation of the leadership role occurs (Friedrich et al., 2009, 2016). In this portion of the framework are behaviors that involve the focal leader either directly or indirectly involving other team members in the decision making and leadership process, and thus engaging in an “exchange” of the leadership role. In a recent study on the three key collective leadership behaviors discussed in this chapter, Friedrich et al. (2016) found that while leader–team exchange behaviors were used less frequently than the other two sets of behaviors, overall, it was used more in a task focused on an innovation problem compared to a strategic change problem. The authors propose that innovation problems, given their complexity, require the use of other’s expertise more than other types of organizational problems.

As it was already highlighted in the review of the consultation literature, involving others in the leadership process has been shown to be positively related to employees’ innovative work behaviors (De Jong and Den Hartog, 2007). As is demonstrated in the following section, this finding holds whether employees are involved in the leadership process by generally empowering them with authority over their decision-making or explicitly giving them authority over the team when they have the relevant expertise. It should be noted that while the “exchange” element of this construct refers only to the exchange of the leadership role, and not the broader social exchange of leader–member exchange (LMX) theory (Graen & Uhl-Bien, 1995), they are not unrelated as it is likely that a high-quality LMX relationship will facilitate the focal leader’s exchange of the leadership role.

## <b>Empowerment

Rather than explicitly identifying individuals with the relevant expertise to pass the leadership role off to, leaders can empower their employees with autonomy and the ability to take control should they feel they possess the skills and knowledge to do so. This subtle form of collective leadership can still be quite powerful in facilitating innovation as ample research has demonstrated that empowerment, and the facet of autonomy in particular, are positively related to employee creativity and innovation.

Zhang and Bartol (2010) found that empowering leadership, which included promoting participation, enhancing meaningfulness of work, expressing confidence, and enhancing autonomy, had a positive influence on individuals’ psychological empowerment, which then increased their creative process engagement (problem identification, information searching, and idea generation). Similarly, Sun et al. (2012) found that when leaders create a climate of empowerment, it influences employee creativity via psychological empowerment. They specifically studied transformational leadership as a mechanism for promoting structural empowerment (as a form of climate). However, it does not seem exclusive to transformational leadership. Rather, it is likely that this effect can be achieved by focusing on creating an environment in which people believe they have the authority over their work.

There are two key caveats that have emerged from the research on empowerment and creativity. Zhang and Zhou (2014) found that empowering behaviors can promote creativity, but trust in the supervisor may be an important precondition. Additionally, Lorinkova, Pearsall, and Sims (2013) found that the importance of empowerment may have delayed effects. While directive leadership showed more immediate effects on performance, teams that were led by empowering leadership showed greater learning and coordination in the long term – two team processes that are critical to successful innovation. Leading into our next form of leader–

team exchange, a study by Hoch (2013) demonstrated that empowerment was a key antecedent to the emergence of shared leadership.

### **<b>Shared Leadership**

Shared leadership has been discussed as an emergent leadership property within the team in which individuals lead in a collective manner (Klein et al., 2006), as well as an explicit process by which the leadership role is shared by two or more individuals (Hunter et al., 2012). As mentioned above, Hoch (2013) found that shared leadership was positively related to increased innovative behavior in teams, with empowerment as an antecedent of individuals taking on this role. The sharing of the leadership role, whether in a collective or distributed form, can allow the team to draw from complementary talents in those taking on the leadership role. For instance, Mihalache et al. (2014) found that shared leadership within top management teams can facilitate an organization's ambidexterity – its ability to both explore new opportunities and exploit existing capacities.

We also see benefits to innovation when shared leadership takes the form of an explicit sharing of power between two or more individuals. In a study of innovations within the German construction and engineering industry, Hauschildt and Kirchmann (2001) showed that there were clear benefits to having multiple innovation leaders, or champions, to promote the innovation in the organization, filling roles such as “power promoter” or “technology promoter.” In addition, Hunter, Cushenbery, Fairchild, and Boatman (2012) have highlighted the advantage of several cases of leader pairs, such as Steve Jobs and Tim Cook, who have been able to share the leadership role and capitalize on complementary strengths from each member of the leadership team.

### **<b>Delegation**

Compared to shared leadership, delegation is a more direct form of sharing the leadership role. The focal leader is explicitly passing the role, or parts of it, to other members of their team. The benefit of delegating authority, providing autonomy, and limiting micromanagement in decision making is one of the most robust findings in the creativity literature (De Jong & Den Hartog, 2007; Zhou, 2003).

As has already been mentioned, the creativity and innovation processes are likely to require different forms of leadership, as well as different skills throughout the different phases (Reiter-Palmon & Illies, 2004). By delegating authority, a leader who recognizes that they may not possess the needed skills or the appropriate leadership style, can recruit someone else who does and enhance the team's performance. Along these lines, De Jong and Den Hartog (2007) conducted a qualitative study within a firm focused on knowledge-intensive services, and through a series of interviews identified 13 key leader behaviors that promote innovation in teams. They found that delegation was related to both idea generation and the application of the ideas. In an examination of the mechanisms underlying how delegation may facilitate employees' innovative behavior, Chen and Aryee (2007) found that delegation was positively related to innovative behavior through its influence on their perceived insider status and organization-based self-esteem.

### **<b>Use of Individuals' Expertise**

Our final form of leader–team exchange is one that has received less attention as it focuses on a specific form of delegation – a leader's identification and use of different individuals' expertise depending on the task. A study by Klein et al. (2006) provides some insight into how this form of leader–team exchange is utilized. They examined the leadership of medical teams in a trauma center and found that the leading physicians regularly divested the leadership role, or what they called “dynamic delegation” to the specific individual that had the

most relevant expertise at that point in time. They found that a leader's ability to do this enhanced the team's performance in this rapidly changing and complex environment – an environment that could serve as an analog to creative problem solving.

An important condition of this form of leader–team exchange is the presence of diverse expertise in the team to capitalize on. There is ample evidence that diverse skills and knowledge within a team are positively related to innovation (Paulus, 2000, Woodman et al., 1993), and that leaders can play a role in capitalizing on the diversity (Shin & Zhou, 2007), but it is less clear how leaders actively capitalize on this and distribute the leadership role to individuals based on it. A study by Rodan and Galunic (2004) may provide some insight, however. They found that, while the structure of leaders' networks was important to the manager's innovative performance, the diversity of knowledge within these networks was just as, or more, important. While they did not examine how the leaders used the diversity of expertise in their network, it seems that having diverse knowledge within the team may be an important precursor to the leader's use of it in promoting innovation. Again, as noted before, the diversity of expertise built into the team should reflect the needs of the given task.

## <a>CONCLUSIONS

While we have focused this chapter on three of the key sets of collective leadership behaviors, it is important to note that there are other components of the collective leadership framework that may serve to facilitate innovation. For instance, the authors of the collective leadership framework outlined several traits, skills and abilities of the focal leader that are important to the emergence of collective leadership, including the leader's intelligence, technical skills, and creative problem-solving skills (Friedrich et al., 2009). These are also individual capacities that have been shown to predict a leader's and team's creative performance (Andrews and Farris, 1967; Mumford, Connelly, & Gaddis, 2003).

A second component of the framework that may also promote innovation is the affective climate of the team. A positive affective climate is important for the emergence of collective leadership (Friedrich et al., 2009), as it is expected to facilitate individuals' willingness to take on the leadership role as well as team members accepting the authority of others. A positive affect climate is also important to innovation. For instance, Baron and Tang (2011) found that positive affect amongst a team of entrepreneurs was related to their creativity and ultimate firm-level innovation, and Peralta, Lopes, Gilson, Lourenço, and Pais (2015) found that negative affective tone was related to lower team innovation.

In examining the leading for innovation literature, it is clear that the creative and innovative processes require a different approach to leadership – one that is flexible, draws on the expertise of others, and builds an environment where individuals can work together to solve complex problems. As a result, the collective leadership approach to leadership may be particularly useful in the innovation domain.

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